



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/694,727

10/29/2003

Hideo Kitami

Q78161

4052

23373 7590 03/31/2009

SUGHRUE MION, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
SUITE 800
WASHINGTON, DC 20037

EXAMINER

AJIBADE AKONAI, OLUMIDE

ART UNIT

PAPER NUMBER

2617

MAIL DATE

DELIVERY MODE

03/31/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/694,727	Applicant(s) KITAMI ET AL.	
	Examiner OLUMIDE T. AJIBADE AKONAI	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on 07 January 2009.

2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☐ Claim(s) 1-23 is/are pending in the application.

 4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☒ Claim(s) 18 and 23 is/are allowed.

6) ☒ Claim(s) 1,3-5,7,9-11,13,15-17 and 19-22 is/are rejected.

7) ☒ Claim(s) 2,6,8,12 and 14 is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☒ All b) ☐ Some * c) ☐ None of:

1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
 Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
 Paper No(s)/Mail Date _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 5, 7, 11, and 19-22 are rejected under 35 U.S.C. 102(e) as being anticipated by **Henry et al 7,058,059 (hereinafter Henry)**.

Regarding **claims 1 and 19**, Henry discloses a wireless LAN terminal (intelligent device 902, see figs 2 and 9, lines 1-3) comprising: a reception means for receiving a wireless LAN signal from another wireless LAN terminal (device 902 receiving a frame from MH 900, see fig. 9, lines 9-14); an encapsulation means for encapsulating the wireless LAN signal in OSI layer 2 by providing the wireless LAN signal with a header having its own terminal's MAC address as an originating MAC address and a wireless LAN base station's address as a destination MAC address (device 902 encapsulates packet received from the frame, the encapsulated packet including the device 902 MAC address as the source address, and a the MAC address of a recipient access point AP as the destination MAC address, see fig. 9, col. 12, lines 13-25); and a transmission means for transmitting the encapsulated wireless signal to the wireless LAN base

station (transmitting the encapsulated packet to the AP 914, see fig. 9, col. 12, lines 14-25).

Regarding **claim 5**, Henry discloses a wireless LAN base station comprising: an encapsulation means for encapsulating a wireless LAN signal destined for a first wireless LAN terminal in OSI layer 2 by providing the wireless LAN signal with a header having its station's MAC address as an originating MAC address and a second LAN terminal's MAC address as a destination MAC address (device 902 encapsulates packet received from the frame, the encapsulated packet including the device 902 MAC address as the source address, and a the MAC address of a recipient access point AP as the destination MAC address, see fig. 9, col. 12, lines 13-25); and a transmission means for transmitting the encapsulated wireless LAN signal to the second LAN terminal (transmitting the encapsulated packet to the AP 914, see fig. 9, col. 12, lines 14-25).

Regarding **claims 7 and 21**, Henry discloses a wireless LAN terminal (914, see fig. 9, col. 12, lines 20-21) comprising: a reception means for receiving a wireless LAN signal which is destined for another wireless LAN terminal and is encapsulated in OSI layer 2 by being provided with a header having a LAN station's MAC address as an originating MAC address and own terminal's MAC address as a destination address (device 902 encapsulates packet received from the frame, the encapsulated packet including the device 902 MAC address as the source address, and a the MAC address of a recipient access point AP as the destination MAC address, see fig. 9, col. 12, lines 13-25); an extraction means for extracting the wireless LAN signal from the

encapsulated wireless LAN signal (access point 914 strips the MAC address, see fig. 9, col. 12, lines 30); and a transmission means for transmitting the extracted wireless LAN signal to said another wireless LAN terminal (transmitting the packet to 906, see fig. 9, lines 15-30).

Regarding **claims 11, 20, and 22**, Henry discloses a wireless LAN terminal comprising: a reception means for receiving a wireless LAN signal which is transmitted from a first wireless LAN terminal and is encapsulated in OSI layer 2 by being provided with a header having its second LAN terminal's MAC address as an originating MAC address and a LAN station's MAC address as a destination address (device 902 encapsulates packet received from the frame, the encapsulated packet including the device 902 MAC address as the source address, and a the MAC address of a recipient access point AP as the destination MAC address, and transmitting the packet to the access point 914 see fig. 9, col. 12, lines 13-25); and an extraction means for extracting the wireless LAN signal from the encapsulated wireless LAN signal (access point 914 strips the MAC address, see fig. 9, col. 12, lines 30).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 3, 4, 9, 10, 13, and 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Henry et al 7,058,059 (hereinafter Henry).

Regarding claim 13, Henry discloses a wireless LAN terminal comprising: a first reception means for receiving a wireless LAN signal from another wireless LAN terminal (device 902 receiving a frame from MH 900, see fig. 9, lines 9-14); an encapsulation means for encapsulating the wireless LAN signal in OSI layer 2 by providing the wireless LAN signal with a header having its own terminal's MAC address as an originating MAC address and a LAN station's MAC address as a destination MAC

address (device 902 encapsulates packet received from the frame, the encapsulated packet including the device 902 MAC address as the source address, and a the MAC address of a recipient access point AP as the destination MAC address, see fig. 9, col. 12, lines 13-25); a first transmission means for transmitting the encapsulated wireless LAN signal to the wireless LAN base station (transmitting the encapsulated packet to the AP 914, see fig. 9, col. 12, lines 14-25).

Henry does not specifically disclose a second reception means for receiving a wireless LAN signal, which is destined for said another wireless LAN terminal and is encapsulated in OSI layer 2 by being provided with a header having the wireless LAN base station's MAC address as an originating MAC address and a terminal's MAC address as a destination address; an extraction means for extracting the wireless LAN signal from the encapsulated wireless LAN signal received by the second reception means; and a second transmission means for transmitting the extracted wireless LAN signal to said another wireless LAN terminal.

However, it would have been obvious to one of ordinary skill to modify Henry by having the host 906 as a source host and MH 900 as a target host, so that the intelligent device 902 receives a packet that is transmitted from the AP 914, the packet containing a source MAC address, the source address being the MAC address of the AP 914, MAC_{AP} , and a destination address, the destination address being the MAC address of the intelligent device, MAC_{NIC} ; and have the intelligent device transmit the packet to the MH 900, the packet transmitted from the intelligent device having a source address, the source address being the MAC address of the intelligent device, MAC_{NIC} ,

and a destination address, the destination address being the MAC address of the MH 900 MAC 1 (see fig. 9, col. 12, lines 6-30), for the benefit of transmitting a packet from a source host 906, to a target host 900.

Regarding **claims 4, 10 and 17**, as applied to claims 1, 7 and 13, Henry discloses a channel setup means for setting a wireless channel of the reception means (inherent, since a channel needs to be set up between the intelligent device 902 and MH host 900 in the WLAN before they communicate the packets to each other, see fig. 9, col. 11, lines 66-67, col. 12, lines 1-14).

Regarding **claims 3, 9, and 16**, as applied to claims 1, 7, and 13, Henry further discloses a start/stop means for starting or stopping the reception means based on a request from said another wireless terminal and a state of communication with said another wireless terminal (see fig. 9, col. 11, lines 66-67, col. 12, lines 1-14).

Regarding **claim 15**, Henry discloses wherein the first reception means and the second reception means operate in a time sharing manner using a common wireless LAN module (see fig. 9, col. 12, lines 6-30); and wherein the first transmission means and the second transmission means operate in a time sharing manner using a common wireless LAN module (see fig. 9, col. 12, lines 6-30).

Allowable Subject Matter

5. Claims 2, 6, 8, 12, and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 18 and 23 are allowed.

Response to Arguments

6. Applicant's arguments filed January 7, 2009 have been fully considered but they are not persuasive. Regarding claims 1, 5, 7, 11, 13, 19, 20, 21, and 22, the applicants' representative asserts that Henry et al fails to disclose or reasonably suggest "an encapsulation means for encapsulating the wireless LAN signal in OSI layer 2 by providing the wireless LAN signal with a header having its own terminal's MAC address as an originating MAC address and a wireless LAN base station's address as a destination MAC address". The examiner respectfully disagrees. The applicants' representative asserts that in the recited claims, the encapsulation is executed in the OSI layer 2. However, the claims specifically disclose encapsulating the WLAN signal in OSI layer 2 by "providing the wireless LAN signal with a header having its own terminal's MAC address as an originating MAC address and a wireless LAN base station's address as a destination MAC address". Since Henry et al., discloses encapsulation of a received WLAN signal by having the device's MAC address as the originating MAC address and the access point's MAC address as the destination MAC address (see fig. 9, col. 12, lines 13-25), Henry broadly reads on the applicants' claimed limitation. Claims 1, 5, 7, 11, 13, 19, 20, 21, and 22 thus stand rejected.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **OLUMIDE T. AJIBADE AKONAI** whose telephone number is (571)272-6496. The examiner can normally be reached on **M-F, 8.30p-5p**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Charles Appiah** can be reached on **571-272-7904**. The fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

OA

/Charles N. Appiah/
Supervisory Patent Examiner, Art Unit 2617

